

UNIVERSITY OF BOLTON

FACULTY OF HEALTH AND WELLBEING

BSc (HONS) DENTAL TECHNOLOGY

SEMESTER TWO EXAMINATION 2022/2023

**DENTAL TECHNOLOGY TECHNIQUES FOR
ORTHODONTICS**

MODULE NO: DNT5105

Date: Tuesday 9 May 2023

Time: 2.00 pm – 4.00 pm

INSTRUCTIONS TO CANDIDATES:

There are **15 questions** on this examination paper.

Answer **ALL** questions on this examination paper.

There are a total of **100 marks** available.

Marks for parts of questions are shown in brackets.

The pass mark is 40%.

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Answer ALL questions on this examination paper

- 1) True or false? A removable appliance is indicated for bodily tooth movement.
- 1 mark**
- 2) Why is it vitally important when constructing a bonded retainer that the impression used to cast the model is accurate?
- 4 marks**
- 3) It is usually cost and time effective to repair a removable appliance. Describe and discuss what you would need to do to repair a Hawley retainer that had a broken Adams clasp in order to make it fit for purpose and clinically acceptable.
- 16 marks**
- 4) A patient presents with an overjet.
- a) Name a removable appliance that would correct this malocclusion.
- (1 mark)**
- b) Describe the type, location and wire size of the components that would be required for this appliance.
- (7 marks)**
- c) Why would the active component for this appliance be chosen?
- (1 mark)**

Total 9 marks

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5) What is the purpose of a retentive component, e.g. an Adams clasp?

1 mark

6) Why is it usually essential when correcting a class II malocclusion to expand the upper arch?

1 mark

7) Name 5 of the many reasons why you consider the Adams clasp to be a versatile component part of a removable orthodontic appliance.

5 marks

8) The retention phase of orthodontics is a vital part of the treatment plan for a patient to correct a malocclusion.

Explain the importance of this phase of the treatment plan.

6 marks

9) List the advantages of intra-oral scanning in the production of orthodontic models?

4 marks

10) Around which point will a tooth move on the application of a tipping force supplied by an active component in a removable appliance?

1 mark

11) Briefly discuss how a functional appliance corrects a malocclusion.

4 marks

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12) Removable orthodontic appliances are made up from active components, passive components and components that supply fixation. Discuss what you understand by this statement and give at least two examples of each.

12 marks

13) a) In orthodontics what do you understand by the term anchorage?

(3 marks)

b) In removable orthodontic treatment it is generally advised to only move one or two teeth at a time. Why is this?

(3 marks)

c) Name 3 ways in which anchorage in removable orthodontics can be preserved and help avoid unwanted tooth movement.

(3 marks)

Total 9 marks

14) Compare and contrast the advantages and disadvantages of a Hawley retainer with a bonded retainer.

20 marks

15) Draw a labelled diagram to show what is occurring within the supporting structures of a tooth when an orthodontic tipping force is applied. Your diagram should include where the force is applied and the point around which the tooth will move.

7 marks

TOTAL MARKS - 100

END OF QUESTIONS